BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK: IMPROVEMENTS TO ROADS AND DRAINS NEAR CHIKKA MUNIYAPPA HOUSE AT AMRUTHAHALLI IN WARD NO 07 - BYATARAYANAPURA, KODIGEHALLI SUB DIVISION.

CONSULTANT:

BVH CONSULTING ENGINEERS

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Bruhat Bangalore Mahanagara Palike

(17)

BYTARAYANAPURA DIVISION

Job No: 007-16-000043 26618

Name of Agency :- Benaka Developers and projects Pvt. Ltd

Bill No :- 1st Part Bill

Name of work: Improvements to Roads and drains near Chikka Muniyappa house at Amruthahalli in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Measurements recorded on:								
	Desilt	**Cum**							
	Chikka Muniyappa Layout								
	RHS 0-30								
	30-60		1	30.00	0.50	0.60	9.00		
	60-90		1	30.00	0.50	0.60	9.00		
	90-120		1	30.00	0.50	0.60	9.00		
	120-150		1	30.00	0.50	0.60	9.00		
	150-180		1	30.00	0.50	0.60	9.00		
	180-210		1	30.00	0.50	0.60	9.00		
	210-240		1	30.00	0.50	0.60	9.00		
	240-259		1	19.00	0.50	0.60	5.70		
	LHS drain								
	60-90		1	30.00	0.50	0.60	9.00		
	90-120		1	30.00	0.50	0.60	9.00		
	120-150		1	30.00	0.50	0.60	9.00		
	150-180		1	30.00	0.50	0.60	9.00		
	180-210		1	30.00	0.50	0.60	9.00		
	210-240		1	30.00	0.50	0.60	9.00		
	240-259		1	19.00	0.50	0.60	5.70		
	Over Burden Earth								
	ch:0.00 - 30.00		2	20	2	0.40	32.00		
	ch:60.00 - 90.00		2	15	2	0.30	18.00		
	ch:150.00- 180.00		2	26	1.6	0.30	24.96		
	ch:210.00 - 220.00		2	10	1.5	0.30	9.00		
	ch:230.00 - 260.00		2	20	1.8	0.45	32.40		
	ch:190.00 - 210.00		2	20	1.4	0.35	19.60		
	ch:30.00 - 60.00		2	27	1.4	0.40	30.24		
					Total Qty Cum		**294.60**	**196.00**	**57741.60**
2	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Measurements recorded on:								
	BS Slab Drain	**Sqm**							
	Damaged Drain								
	LHS 0.00 - 30.00 Bottom		1	30.00	0.40		12.00		
	LHS 0.00 - 30.00 Sides		2	30.00	0.45		27.00		
	LHS 30.00 - 60.00 Bottom		1	30.00	0.35		10.50		
	LHS 30.00 - 60.00 Sides		2	30.00	0.45		27.00		
	LHS 60.00 - 90.00 Bottom		1	30.00	0.35		10.50		

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Assistant Executive Engineer
Kodigehalli Sub Division

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	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
	LHS 60.00 - 90.00 Sides		2	30.00	0.45		27.00		
	LHS 90.00 - 120.00 Bottom		1	30.00	0.35		10.50		
	LHS 90.00 - 120.00 Sides		2	30.00	0.45		27.00		
	LHS 120.00 - 145.00 Bottom		1	15.00	0.40		6.00		
	LHS 120.00 - 145.00 Sides		2	15.00	0.45		13.50		
					Total Qty Sqm		171.00	85.00	14535.00
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	BS Slabs Drain								
	RHS 0.00 - 30.00 bottom		1	30.00	0.40		12.00		
	sides		2	30.00	0.45		27.00		
	RHS 30.00 - 47.00 bottom		1	17.00	0.40		6.80		
	sides		2	17.00	0.45		15.30		
					Total Qty Sqm		61.10	699.00	42708.90
4 17	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Measurements recorded on:								
	Chikka Muniyappa Layout								
	0-30		1	30.00	(4.1+5)/2	0.40	54.60		
	30-60		1	30.00	(5+5.3)/2	0.45	69.53		
	60-90		1	30.00	(5.3+4.6)/2	0.40	59.40		
	90-120		1	30.00	(4.6+4.3)/2	0.40	53.40		
	120-150		1	30.00	(4.3+5)/2	0.42	58.59		
	150-180		1	30.00	(5+6)/2	0.45	74.25		
	180-210		1	30.00	(6+6.2)/2	0.40	73.20		
	210-240		1	30.00	(6.2+5.8)/2	0.40	72.00		
	240-264		1	24.00	(5.8+6.4)/2	0.45	65.88		
					Total Qty Cum		580.35	156.00	90534.60
5 20	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Measurements recorded on:								
	Chikka Muniyappa Layout								
	0-30		1	30.00	(4.1+5)/2	0.25	34.13		
	30-60		1	30.00	(5+5.3)/2	0.25	38.63		
	60-90		1	30.00	(5.3+4.6)/2	0.25	37.13		
	90-120		1	30.00	(4.6+4.3)/2	0.25	33.38		
	120-150		1	30.00	(4.3+5)/2	0.25	34.88		
	150-180		1	30.00	(5+6)/2	0.25	41.25		
	180-210		1	30.00	(6+6.2)/2	0.25	45.75		
	210-240		1	30.00	(6.2+5.8)/2	0.25	45.00		
	240-264		1	24.00	(5.8+6.4)/2	0.25	36.60		
					TOTAL QTY Cum		346.73	1855.00	643174.88

Abstract. N.D AE(Civil) 15/01/18

Abstract. N.D 17/01/18

Abstract. N.D AE(Civil) 19/01/18

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Kodigehalli Sub Division

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	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
6	KSRRB M500-6. Providing and applying **primer coat with S.S. bitumen emulsion on prepared surface of granular base** such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kg /sqm using mechanical means complete as per specifications.As per MORTH Specification No. 502 with all lead and lift loading and unloading and all other incidential charges etc.complete as per specification and direction of the engineer-in-charge of the work								
	Measurements recorded on:								
	Prime Coat	**Sqm**							
	Chikka Muniyappa Layout								
	0-30		1	30.00	(4.1+5)/2		136.50		
	30-60		1	30.00	(5+5.3)/2		154.50		
	60-90		1	30.00	(5.3+4.6)/2		148.50		
	90-120		1	30.00	(4.6+4.3)/2		133.50		
	120-150		1	30.00	(4.3+5)/2		139.50		
21	150-180		1	30.00	(5+6)/2		165.00		
	180-210		1	30.00	(6+6.2)/2		183.00		
	210-240		1	30.00	(6.2+5.8)/2		180.00		
	240-263		1	24.00	(5.8+6.4)/2		146.40		
					Total Qty Sqm		**1386.90**	**31.00**	**42993.9**
7 23	KSRRB 500-7. Providing and applying **tack coat using 80/100 grade bitumen**(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH Chapter 5 with all lead and lift loading and unloading and all other incidential charges etc.complete as per specification and direction of the engineer-in-charge of the work								
	Measurement recorded on:								
	For Laying BC								
	Chikka Muniyappa Layout								
	0-30		1	30.00	(4.1+5)/2		136.50		
	30-60		1	30.00	(5+5.3)/2		154.50		
	60-90		1	30.00	(5.3+4.6)/2		148.50		
	90-120		1	30.00	(4.6+4.3)/2		133.50		
	120-150		1	30.00	(4.3+5)/2		139.50		
	150-180		1	30.00	(5+6)/2		165.00		
	180-210		1	30.00	(6+6.2)/2		183.00		
	210-240		1	30.00	(6.2+5.8)/2		180.00		
	240-263		1	24.00	(5.8+6.4)/2		146.40		
					Total Qty Sqm		**1386.90**	**13.00**	**18029.70**
8 25	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Measurement recorded on:								
	Bituminous Concrete	**Cum**							
	Chikka Muniyappa Layout								
	0-30		1	30.00	(4.1+5)/2	0.04	5.46		
	30-60		1	30.00	(5+5.3)/2	0.04	6.18		
	60-90		1	30.00	(5.3+4.6)/2	0.04	5.94		

AE(NH) 25/01/18

Assistant Executive Engineer
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	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
	90-120		1	30.00	(4.6+4.3)/2	0.04	5.34		
	120-150		1	30.00	(4.3+5)/2	0.04	5.58		
	150-180		1	30.00	(5+6)/2	0.04	6.60		
	180-210		1	30.00	(6+6.2)/2	0.04	7.32		
	210-240		1	30.00	(6.2+5.8)/2	0.04	7.20		
	240-264		1	24.00	(5.8+6.4)/2	0.04	5.86		
					Total Qty Cum		55.48	8438.00	468106.49
9	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35 The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Measurement recorded on:								
	Edge line	Sqm							
	Chikka Muniyappa Layout								
	0-30		2	30.00	0.10		6.00		
	30-60		2	30.00	0.10		6.00		
	60-90		2	30.00	0.10		6.00		
	90-120		2	30.00	0.10		6.00		
	120-150		2	30.00	0.10		6.00		
	150-180		2	30.00	0.10		6.00		
	180-210		2	30.00	0.10		6.00		
	210-240		2	30.00	0.10		6.00		
	240-264		2	24.00	0.10		4.80		
	Centre line		44	3.00	0.10		13.20		
					Total Qty Sqm		66.00	570.00	37620.00
					Total Construction Cost				1415445.06

Assistant Executive Engineer
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Bangalore - 560 092

Improvements to roads and drains near chikka-muniyappa house at Amruthahalli in ward no.07.

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AE(W)

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